

What is claimed is:

Sub 001

0024800 0082260

1 1. An ink jet recording material comprising:  
2 a support; and  
3 at least one recording layer provided on said support;  
4 wherein at least one of said at least one recording  
5 layer contains colloidal particles and a water-soluble resin.

1 2. An ink jet recording material according to claim 1,  
2 wherein at least an uppermost layer of said at least one  
3 recording layer contains a dispersion of primary colloidal  
4 particles and a water-soluble resin incorporated; and  
5 at least one of peaks on a pore distribution curve of  
6 said uppermost layer lies in a pore diameter in the range of 2  
7 nm to 100 nm.

0

A<sup>2</sup>

1 3. <sup>The</sup> ~~An~~ ink jet recording material according to claim 1  
2 ~~or 2~~, wherein said colloidal particles are colloidal silica.

Sub 002

1 4. An ink jet recording material according to claim 2,  
2 wherein said support has an recording layer having a plurality  
3 of layers, at least an uppermost layer and a second layer of  
4 said plurality of layers containing colloidal silica; and  
5 at least one of peaks on a pore diameter distribution  
6 curve of said uppermost layer and said second layer lies in a  
7 pore diameter in the range of 2 nm to 100 nm.



09281809 "033199  
667220

1 9. <sup>The</sup> ink jet recording material according to claim 7,  
2 wherein said interlayer contains at least one selected from the  
3 group consisting of thermoplastic resin, adhesive and pressure-  
4 sensitive adhesive.

1 10. <sup>The</sup> ink jet recording material according to claim  
2 1 ~~or 7~~, wherein said recording layer comprises a lower layer  
3 which is close to said support and an upper layer which is far  
4 from said support;

5 said upper layer contains a pigment in an amount of not  
6 less than 80% by weight based on a solid content of said upper  
7 layer; and

8 said pigment contains colloidal particles having an  
9 average particle diameter of not more than 200 nm in a  
10 proportion of not less than 85% by weight of the pigment.

1 11. <sup>The</sup> ink jet recording material according to claim  
2 10, wherein an average particle diameter of the pigment in said  
3 lower layer is greater than that of the pigment in said upper  
4 layer; and

5 the pigment in said lower layer contains colloidal  
6 particles having an average particle diameter of not more than  
7 500 nm.

09281809 033109

12. <sup>The</sup>~~An~~ ink jet recording material according to claim 1 ~~or 7~~, wherein said support has a plurality of recording layers containing colloidal silica and an adhesive.

13. <sup>The</sup>~~An~~ ink jet recording material according to claim 12, wherein an average particle diameter of the colloidal silica in said uppermost layer containing colloidal silica and an adhesive is in the range of 10 nm to 300 nm; and an average particle diameter of the colloidal silica in the layers lower than said uppermost layer containing colloidal silica and an adhesive is greater than that of colloidal silica in said uppermost layer.

14. <sup>The</sup>~~An~~ ink jet recording material according to claim 12, wherein the colloidal silica in at least one of said layers containing colloidal silica and an adhesive is a cationic colloidal silica.

15. <sup>The</sup>~~An~~ ink jet recording material according to claim 1, wherein at least one of the layers constituting said recording layer contains colloidal silica and at least one polyvinyl alcohol selected from the group consisting of polyvinyl alcohol having a saponification degree of not less than 95% and a polymerization degree of not more than 1,100 and a silicon-containing modified polyvinyl alcohol having a polymerization degree of not more than 1,100.

0

10 peeling said forming material from said recording  
11 layer.

1 20. A process for producing an ink jet recording  
2 material according to claim 19, wherein at least one of said at  
3 least one layer of said recording layer containing colloidal  
4 particles and a water-soluble resin.

1 21. A process for producing an ink jet recording  
2 material according to claim 19 or 20, wherein said recording  
3 layer has at least a lower layer which is close to interlayer  
4 and an upper layer which is far from interlayer;  
5 said upper layer contains a pigment in an amount of not  
6 less than 80% by weight based on the solid content of said  
7 upper layer; and

8 said pigment contains colloidal particles having an  
9 average particle diameter of not more than 200 nm in a  
10 proportion of not less than 85% by weight of the pigment.

1 22. A process for producing an ink jet recording  
2 material according to claim 19, wherein said recording layer  
3 includes a plurality of layers containing colloidal silica and  
4 adhesive.

100 A4